

***Remarks***

Reconsideration of this Application is respectfully requested.

Claims 1, 2, 4-7, 9-15, 17-22 and 24-27 are pending in the application, with claims 1, 6, 14 and 21 being the independent claims. Claims 3, 8, 16 and 23 were previously cancelled.

Based on the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

***Rejections under 35 U.S.C. § 103***

**Claims 1, 4-6, 9, 10, 12-14, 17-21 and 24-27**

The Examiner has rejected claims 1, 4-6, 9, 10, 12-14, 17-21 and 24-27 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,438,123 to Chapman ("Chapman") in view of U.S. Patent No. 6,986,157 to Fijolek *et al.* ("Fijolek"). For the reasons set forth below, Applicants respectfully traverse.

Independent claim 1 is directed to a cable modem that includes:

a media access control;

a receiver portion coupled to said media access control; and

a transmitter portion coupled to said media access control;

wherein said media access control is adapted to generate a registration message that indicates support for a plurality of protocol-specific header suppression techniques by the cable modem and wherein said transmitter portion is adapted to transmit said registration message to a cable modem termination system;

wherein said receiver portion is adapted to receive a response to said registration message from said cable modem termination system and

to provide said response to said registration message to said media access control, said response to said registration message indicating whether or not said plurality of protocol-specific header suppression techniques is supported by a cable modem termination system; and

wherein said media access control is further adapted to format data for transmission to said cable modem termination system in accordance with a selected one of said plurality of protocol-specific header suppression techniques if said response to said registration message indicates said plurality of protocol-specific header suppression techniques is supported by said cable modem termination system, and to format data for transmission to said cable modem termination system in accordance with a default header suppression technique if said response to said registration message indicates said plurality of protocol-specific header suppression techniques are not supported by said cable modem termination system.

The combination of Chapman and Fijolek does not teach or suggest each and every one of the foregoing features of independent claim 1. For example, as will be explained below, neither Chapman nor Fijolek teach or suggest a media access control (MAC) in a cable modem that is adapted to format data for transmission to a cable modem termination system (CMTS) in accordance with either “a selected one of [a] plurality of protocol-specific header suppression techniques” or “a default header suppression technique” depending on a response to a registration message received from the CMTS.

Chapman is directed to a DOCSIS-based cable modem network that allows only a single type of header suppression: namely, the suppression of Ethernet, UDP and IP headers in a flow of RTP packets corresponding to a Voice over Internet Protocol (VoIP) phone call. *See* Chapman, column 4, lines 29-44. In Chapman, this single type of header suppression is performed only if the cable modem termination system (CMTS) and a cable modem are both capable of performing it. Otherwise no header suppression is performed. Thus, it cannot be said that Chapman teaches or suggests a MAC in a cable modem that is adapted to format data for transmission to a CMTS in accordance

with either “a selected one of [a] plurality of protocol-specific header suppression techniques” or “a default header suppression technique” depending on a response to a registration message received from the CMTS as recited by independent claim 1.

The Examiner has cited to text in Chapman at column 5, lines 63 through column 6, line 2 and at column 4, lines 60-67 as teaching a MAC in a cable modem adapted to format data for transmission to a CMTS in accordance with either "a first protocol" or "a default protocol (DOCSIS)" depending on a response to a registration message received from the CMTS. *See* Final Office Action at pages 3-4. However, independent claim 1 does not recite formatting data for transmission to a CMTS in accordance with either "a first protocol" or "a default protocol (DOCSIS)" depending on a response to a registration message received from the CMTS. Rather, independent claim 1 recites a MAC in a cable modem that is adapted to format data for transmission to a CMTS in accordance with either “a selected one of [a] plurality of protocol-specific header suppression techniques” or “a default header suppression technique” depending on a response to a registration message received from the CMTS. Since Chapman teaches either performing a single type of header suppression or no header suppression at all, Chapman cannot teach or suggest this feature of independent claim 1.

Fijolek does not in any way remedy this deficiency of Chapman with respect to the features of independent claim 1. Fijolek is directed to a method and system for dynamic service registration, activation and deactivation on a data-over-cable system. Fijolek discusses the transmission of registration messages by a cable modem to a CMTS to establish a service session for a service device associated with the cable modem. The registration message includes multiple service parameters such as Quality-of-Service

("QoS"), Class-of-Service ("CoS"), Type-of-Service ("ToS"), voice service parameters, or other service session parameters. In response to receiving the registration message, the CMTS creates a service session profile for the desired service and associates the profile with a deferred inactive service identifier for the cable modem, which is used to activate the desired service at a later time. The deferred inactive service identifier is then returned to the cable modem in a registration response message.

Contrary to the assertions of the Examiner, the foregoing teachings of Fijolek have nothing to do with header suppression. Rather, these teachings merely relate to dynamically registering a service session on a data-over-cable system. In fact, Fijolek is completely silent with respect to header suppression. Consequently, it also cannot be said that Fijolek, or Chapman in combination with Fijolek, teaches or suggests a MAC in a cable modem that is adapted to format data for transmission to a CMTS in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or "a default header suppression technique" depending on a response to a registration message received from the CMTS as recited by independent claim 1.

Since the combination of Chapman and Fijolek does not teach or suggest each and every feature of independent claim 1, that combination cannot render independent claim 1 obvious. Dependent claims 4 and 5 are likewise not rendered obvious by the combination of Chapman and Fijolek for the same reasons as independent claim 1 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 1, 4 and 5 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Independent claim 6 is directed to a cable modem termination system (CMTS) that includes, among other features, a media access control (MAC) that is adapted to process data transmitted by a cable modem in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or a "default header suppression technique" depending on a protocol indicator. As discussed above with respect to independent claim 1, neither Chapman nor Fijolek teach or suggest a cable modem system that supports header suppression in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or a "default header suppression technique" as claimed. Consequently, the combination of Chapman and Fijolek cannot render independent claim 6 obvious. Dependent claims 9, 10, 12 and 13 are likewise not rendered obvious by the combination of Chapman and Fijolek for the same reasons as independent claim 6 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 6, 9, 10, 12 and 13 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Independent claim 14 is directed to a method for transferring data between a cable modem and a cable modem termination system (CMTS) in a cable modem system that includes, among other features, formatting data for transmission to the CMTS in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or "a default header suppression technique" depending on a response to a registration message received from the CMTS. As discussed above with respect to independent claim 1, neither Chapman nor Fijolek teach or suggest this feature. Consequently, the combination of Chapman and Fijolek cannot render independent claim 14 obvious. Dependent claims 17-20 are likewise not rendered

obvious by the combination of Chapman and Fijolek for the same reasons as independent claim 14 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 14 and 17-20 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

Independent claim 21 is directed to a method for data transfer in a cable modem system including a cable modem termination system (CMTS) and a cable modem that includes, among other features, processing data transmitted by the cable modem in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or a "default header suppression technique" depending on a protocol indicator. As discussed above with respect to independent claim 1, neither Chapman nor Fijolek teach or suggest a cable modem system that supports header suppression in accordance with either "a selected one of [a] plurality of protocol-specific header suppression techniques" or a "default header suppression technique" as claimed. Consequently, the combination of Chapman and Fijolek cannot render independent claim 21 obvious. Dependent claims 24-27 are likewise not rendered obvious by the combination of Chapman and Fijolek for the same reasons as independent claim 21 from which they depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 21 and 24-27 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

**Claims 2, 7, 15 and 22**

The Examiner has rejected claims 2, 7, 15 and 22 under 35 U.S.C. § 103(a) as being unpatentable over Chapman and Fijolek as applied to independent claims 1, 6, 14 and 21 and further in view of U.S. Patent No. 6,788,707 to Horton, Jr. *et al.* ("Horton").

Horton in no way remedies the deficiencies of Chapman and Fijolek with respect to independent claims 1, 6, 14 and 21 as described above. Consequently, the combination of Chapman, Fijolek and Horton does not render claims 1, 6, 14 or 21 obvious. Dependent claims 2, 7, 15 and 22 are likewise not rendered obvious by the combination of Chapman, Fijolek and Horton for the same reasons as independent claims 1, 6, 14 and 21 from which they respectively depend and further in view of their own respective features. Accordingly, Applicants respectfully request that the rejection of claims 2, 7, 15 and 22 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

**Claim 11**

The Examiner has rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Chapman and Fijolek as applied to independent claim 6 and further in view of U.S. Patent No. 6,765,925 to Sawyer *et al.* ("Sawyer"). Sawyer in no way remedies the deficiencies of Chapman and Fijolek with respect to independent claim 6 as described above. Consequently, the combination of Chapman, Fijolek and Sawyer does not render claim 6 obvious. Dependent claim 11 is likewise not rendered obvious by the combination of Chapman, Fijolek and Horton for the same reasons as independent claim 6 from which it depends and further in view of its own features. Accordingly, Applicants respectfully request that the rejection of claim 11 under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

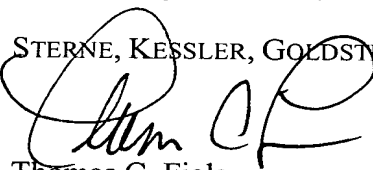
***Conclusion***

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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